

Nitrate and Groundwater: A Public Concern

Nitrogen is an essential element to living matter. Processes in the soil convert some nitrogen to nitrate, which can leach into surface and groundwater.

Ammonium salts containing nitrogen are present in the waste of humans and animals. Fertilizers applied to improve plant growth also contain nitrogen. These are potential sources for excess levels of nitrate-nitrogen in the environment.

Health problems occur when nitrate enters the human body and is converted to nitrite. Infants younger than 6 months of age are more susceptible to nitrate toxicity than older individuals. To avoid toxic effects, a safety standard was set not to exceed 10 milligrams per liter (mg/L) of nitrate-nitrogen in drinking water.

Bacteria and Groundwater

Bacteria are microscopic organisms of great diversity and importance to the world's food chain and in their role as decomposers and recyclers.

Some bacteria can cause sickness. The ideal situation is to have no bacteria in drinking water. Groundwater usually has fewer microorganisms than surface water because of the long travel time in the subsurface environment. However, groundwater can become contaminated. The local geology, inferior well design, faulty well construction, or poor upkeep can result in a contaminated water supply.

Coliform bacteria are a large assemblage of various species of bacteria. Coliform bacteria that normally occur in the intestinal tract of warm-blooded animals belong to this group (fecal coliform). Fecal coliforms include both disease causing and non-disease causing species. E.Coli is a species of fecal bacteria that is present in large numbers in human sewage.



Southwest Washington

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Southwest Washington Health District

Residential Water Samples

Everything You Ever Wanted to Know...



Water Sample Instructions

- Water samples must be collected the same day they are taken to the Health District.
- Residential samples must be taken from an inside tap.
- 3. Do not rinse the sample container even if it appears to contain a fine white powder!
- First, remove the screen from the water spigot. Turn on the cold water tap and allow the water to run for I minute.
- Do not open the sample bottle until you are ready to take the sample.
- Remove the seal from the sample bottle cap.
- Do not touch the inside of the bottle cap or the bottle neck.
- Fill the bottle with cold water from the tap EXACTLY to the 100 ml line.
- Put the cap back on the bottle and refrigerate until you are ready to take the sample to the Health District for testing.



Cost

A NON-REFUNDABLE testing fee of \$35 for each bacteriological sample and \$48 for each nitrate sample is required when samples are dropped off. Cash or checks are accepted for payment.

When Can I Submit a Water Sample?

Nitrates: Monday—Thursday

8:30 am-3:00 pm.

Bacteriologicals: Monday—Friday

8:30 am-3:00 pm.

What's Next?

Take the following items to the Health District the same day samples are taken:

- Payment for each water sample being tested (checks or cash; no credit cards).
- Each water sample being tested.
- The form on this brochure.
- When you arrive at the Health District you will be asked to fill out a Water Sample Form for each sample being submitted.
- Satisfactory water sample results will be mailed to you within 7-10 days.
- You will be contacted by phone if your results are

Return This Form With Your Water Sample

Items listed below MUST be filled out when the sample is taken.

Sample 1

Date Collected:
Time Collected: AM PM
Specific location where sample was collected (I.e. kitchen faucet):
Address (if different than customer mailing address):
Sample 2
Date Collected: AM PM
Specific location where sample was collected (I.e. kitchen faucet):
Address (if different than customer mailing address):

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